IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of

Bala et al.

Serial No. 09/886,547   Group Art Unit: 2171

Filed: June 21, 2001   Examiner: E. Leroux

For: WEB-BASED STRATEGIC CLIENT PLANNING SYSTEM FOR END-USER

CREATION OF QUERIES, REPORTS AND DATABASE UPDATES

Commissioner for Patents
P.O. Box 1450
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APPELLANTS' APPEAL BRIEF

Sirs:

Appellants respectfully appeal the final rejection of claims 1-3, 5-11, 13-21, and 23-27 in the Office Action dated December 3, 2003. A Notice of Appeal was timely filed on February 26, 2004.

I.   REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corp., Armonk, New York, assignee of 100% interest of the above-referenced patent application.

II.   RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III.   STATUS OF CLAIMS

Claims 1-3, 5-11, 13-21, and 23-27 are all the claims pending in the application and are set forth fully in the attached appendix. Claims 1-27 were originally filed in the application. Claims 4, 12, and 22 were cancelled in an Amendment filed on October 8, 2003.

Claims 1-3, 5-11, 13-21, and 23-27 stand rejected on prior art grounds. Specifically, claims 1-3, 5, 8, 10, 11, 13, 16, 19-21, 23 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatenable over Ireland et al, hereinafter "Ireland"(U.S. Patent No. 6,222,666) in view of Huber (U.S. Patent No. 5,802,514). Claims 6, 14, and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ireland, Huber, and further in view of Hahn et al., hereinafter "Hahn"(U.S. Publication No. US2002/0152293). Claims 7, 9, 15, 17, and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ireland, Huber, and further in view of Della-Libera et al., hereinafter "Della-Libera" (U.S. Publication No. US2003/0023609). Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ireland, Huber, further in view of Guthery (U.S. Patent No. 6,567,915). Claim 27 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ireland, Huber, and further in view of Smith et al., hereinafter "Smith", (U.S. Publication No. US2002/0167543). Appellants respectfully traverse these rejections based on the following discussion.

IV.   STATEMENT OF AFTER-FINAL AMENDMENTS

An After-Final Response that made no claim amendments was filed on February 3, 2004. An Advisory Action dated March 9, 2004 indicated that, upon filing an appeal, the Response filed on February 3, 2004 did not place the application in condition for allowance, and that the rejections of claims 1-3, 5-11, 13-21, and 23-27 would remain. The claims shown in the appendix are shown in their amended form as of the October 8, 2003 Amendment.

V.   SUMMARY OF THE INVENTION

The application discloses a computer network having a secure database management system that has a user friendly database client interface with the following functional capabilities. For example, the invention creates secure complex queries based on selection of table(s), columns, and constraints, and then runs the queries to create a snapshot of the database data on their workstation. Further, the invention edits the results of the query on their workstation, and when all edits are complete, saves the changes on the database. Next the invention produces reports capable of summarizing information by selected groups, and producing subtotals and grand totals if desired. The invention also produces comparison reports on the delta between two similarly structured tables, as well as provides the ability to make mass changes (cascade) to a set of related data, across multiple tables. Further, the invention provides an easily administered set of security and controls to ensure users update only the tables, rows, and columns to which they are authorized as well as provides the ability to initiate batch processes on the database server. Also, the invention provides an automated method of maintaining the current level of software on the client workstation, to ensure that the client level of code is always current.

More specifically, as explained in paragraph 47 of the application, and as shown in Figure 2 of the application, the invention is web-based and has user-friendly GUIs using a form-type format for creating secure complex queries based on selection of table(s), columns, and constraints, running the queries to create a snapshot of the database 160 data on their workstation, and editing the results of the query on their workstation 150, and when all edits are complete, saving the changes on the archival database 160. The prior art of record does not teach or suggest editing the results of the query on their workstation 150, and when all edits are complete, saving the changes on the archival database 160.

Further, as described in paragraph 67 of the application, if desired, changes to the data on their workstation 150 can be performed by inserting, deleting, or updating rows; importing data from the clipboard or from files; and by using editing features such as

find/replace and copy/paste features, which are provided in the SCPS Java applet, and which execute in a browser environment. Applicants' Figure 7C shows item 757 that represents the editing of the worksheet including common functions such as inserting, deleting, updating, importing, replicating, calculating, etc. possibly using imported user data 756.

The SCPS invention is highly versatile and provides a model for use with any relational database. While the focus of the invention is to provide a set of query building and data editing functions for manufacturing planners, it is not unique to the planning environment. The invention can be applied for use with any relational database used by any customer set. It is particularly well adapted to those customer sets who require the ability to work independently with large amounts of data before committing changes to a central database. The invention provides a transparently distributed editor and control tool for remote database systems.

VI.   ISSUES PRESENTED FOR REVIEW

The issues presented for review by the Board of Patents Appeals and Interferences are whether claims 1-3, 5, 8, 10, 11, 13, 16, 19-21, 23 and 26 are unpatentable under 35 U.S.C. §103(a) over Ireland in view of Huber; whether claims 6, 14, and 24 are unpatentable under 35 U.S.C. §103(a) over Ireland, Huber, and further in view of Hahn; whether claims 7, 9, 15, 17, and 25 are unpatentable under 35 U.S.C. §103(a) over Ireland, Huber, and further in view of Della-Libera; whether claim 18 is unpatenable under 35 U.S.C. §103(a) over Ireland, Huber, further in view of Guthery; and whether claim 27 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ireland, Huber, and further in view of Smith.

VII.   GROUPING OF THE CLAIMS

As supported by the following arguments, the claims are each independently patentable and do not stand or fall together. More specifically, the dependent claims are patently distinct from the independent claims from which they depend because each

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dependent claim defines additional features which are not defined in the independent claims or which are defined more broadly in the independent claims. As discussed in greater detail below, the features defined by the dependent claims are not merely illustrations or examples but include patentable features which prevent the dependent claims from standing or falling with their associated independent claim.

VIII. ARGUMENT

A. The Prior Art Rejections

1. The Rejection Based on Ireland in view of Huber

a. The Position in the Office Action

With respect to the rejections of claims 1-4, 8, 10, 11, 13, 16, 19-21 and 23, the Office Action states the following:

Claim 1:

Ireland '666 discloses:
creating a query form in said client workstation [Fig 2, item 210 and col 6, lines 39-59 and col 9, line 59 through col 10, line 10];
receiving a worksheet form in response to said query form, said worksheet form defining selected tabular data [col 8, lines 32-3 5]
packaging said worksheet form to represent updated data for said tabular data stream [col 10, lines 36-43], wherein said packaging of said worksheet form includes editing results of said query form [col 10, lines 36-43] and
saving changes of data contained in said worksheet form in a database of said server [Fig 2, item 230].

Ireland discloses the elements of claim 1 as noted above. Ireland '666 fails to disclose said worksheet form formatted in grid form.

Huber '514 discloses a worksheet in grid form [Fig 4].
It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ireland '666 to include a response in worksheet grid form as taught by Huber '514.

The ordinarily skilled artisan would have been motivated to modify Ireland '666 per the above for the purpose of providing a means to more easily read and understand multiple data entries displayed in tabular format.

Claim 2:

Ireland '666 discloses wherein said creating of said query form creates secure complex queries [Fig 2, item 223] based on a selection of table, columns, and constraints maintained in a database of said server computer.

Claim 3:

Ireland '666 discloses wherein said receiving of said worksheet grid form creates a snapshot from data in a database of said server [Fig 6, item 610].

Claim 5:

Ireland '666 discloses wherein said packaging said worksheet grid form includes producing reports capable of summarizing information by selected groups [Fig 6, item 610].

Claim 8:

Ireland '666 discloses wherein said packaging said worksheet grid form includes allowing only tables, rows, and columns to be updated by authorized users [Fig 2, item 223 and col 8, lines 12-15].

Claim 10:

issuing, by a client process running on a client computer, a query form for data from a database [Fig 2, item 210 and col 6, lines 39-59 and col 9, line 59 through col 10, line 10];

sending said query form from said client computer to said server computer [col 6, lines 29-38];

processing said query form, by said server computer [Fig 2, item 221 and col 8, lines 49-55]

retrieving rows of data satisfying said query form from said database as a worksheet grid form defining selected tabular data [col 8, lines 56-67]

sending said worksheet grid form from said server computer to said client computer [col 8, lines 56-67]

packaging, by said client computer, said worksheet grid form representing updated data for marshaling tabular data for transfer between said client computer and said server computer [col 8, lines 56-67]

wherein said, packaging of said worksheet includes editing [col 10, lines 36-39] results of said query form and saving changes of data contained in said worksheet form in a database of said server [Fig 2, item 230].

Ireland discloses the elements of claim 10 as noted above. Ireland '666 fails to disclose said worksheet form formatted in grid form. Huber '514 discloses a worksheet in grid form [Fig 4].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ireland '666 to include a response in worksheet grid form as taught by Huber '514.

The ordinarily skilled artisan would have been motivated to modify Ireland '666 per the above for the purpose of providing a means to more easily read and understand multiple data entries displayed in tabular format.

Claim 11:

Huber '514 discloses updating said database through said network by transmitting said worksheet grid form from said client computer to said server computer [col 7, lines 1-5]. Claim 13:

Ireland '666 discloses wherein said packaging said worksheet grid form includes producing reports capable of summarizing information by selected groups [Fig 6, item 610]. Claim 16:

Ireland '666 discloses wherein said packaging said worksheet grid form includes allowing only tables, rows, and columns to be updated by authorized users [Fig 2, item 223 and col 8, lines 12-15].

Claim 19:

Ireland '666 discloses:

receiving a request to create a query form in said client workstation [Fig 2, item 210 and cot 6, lines 39-59 and col 9, line 59 through col 10, line 10];

receiving a worksheet defining selected tabular data [col 8, lines 32-35];

packaging said worksheet representing updated data for said tabular data stream [col 10, lines 36-43], wherein said packaging of said worksheet includes editing results of said query form [col 10, lines 36-43]

saving changes of data contained in said worksheet in a database of said server [Fig 2, item 230].

Ireland discloses the elements of claim 19 as noted above.

Ireland '666 fails to disclose said worksheet form formatted in grid form.

Huber '514 discloses a response a worksheet in grid form [Fig 4].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ireland '666 to include a response in worksheet grid form as taught by Huber '514.

The ordinarily skilled artisan would have been motivated to modify Ireland '666 per the above for the purpose of providing a means to more easily read and understand multiple data entries displayed in tabular format.

Claim 20:

Ireland '666 discloses wherein said creating of said query form creates secure complex

queries [Fig 2, item 223] based on a selection of table, columns, and constraints maintained in a database of said server computer.

Claim 21:

Ireland '666 discloses wherein said receiving of said worksheet grid form creates a snapshot from data in a database of said server [Fig 6, item 610].

Claim 23:

Ireland '666 discloses wherein said packaging said worksheet grid form includes producing reports capable of summarizing information by selected groups [Fig 6, item 610].

b.   Appellants' Position

i.   Independent Claims 1, 10, and 19

The Office Action relies upon the paragraph appearing in column 10, lines 36-42 of Ireland as disclosing the claimed limitation "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. However, as explained in greater detail below, it is Applicants' position that this paragraph in Ireland only discloses the claimed sending of a request to a server and receiving tabular result sets back in response to the request and does not disclose any editing of such results and/or saving such changes in the database as in the claimed invention.

More specifically, the last sentence of the paragraph appearing in column 10, lines 36-42 of Ireland only states that Ireland uses JDBC (Java Database Connectivity) "for sending requests to the component transaction server for receiving tabular result sets back." This language clearly describes a communication where a client makes a request to a data server and where tabular result sets are returned to the client. There is nothing in this sentence or in the remainder of the quoted paragraph (or any other portion of Ireland) that discloses the additional claimed process of editing the results of the query and saving changes back in the database of the server.   Further. Huber is silent regarding this feature, and the Office Action does not propose that Huber teaches this feature. Huber is principally directed to the utilization of a drag-and-drop interface and is referred to in the Office Action for teaching providing a response in worksheet grid form.

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Appeal Brief

The paragraph appearing in column 10 lines 36-42 of Ireland begins by stating that the client can generate components graphically (first sentence) and then explains that the client can generate a stub, for a Java component (second sentence). As noted above, in the third sentence of this paragraph the stub employs Java Database Connectivity to send requests to the component transaction server in order to receive tabular result sets back. It is Applicants' position that this paragraph therefore clearly describes a client making a request to a data server and tabular results being returned in response to the request. There is simply nothing in the Ireland reference which would teach or suggest to one ordinarily skilled in the art a process of editing the results of the query and saving changes back to the database of the server as the claimed invention does.

Therefore, Applicants respectfully disagree with the conclusion in the Office Action that Ireland and Huber teach or suggest the ability to modify the query result set on the workstation and commit those changes back to the database server. To the contrary, Huber and Ireland focus on the ability to generate and execute dynamic read-only queries. Therefore, it is Applicants' position that the combination of Ireland and Huber does not teach or suggest "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19.

More specifically, as explained in paragraph 47 of the application, and as shown in Figure 2 of the application, the invention is web-based and has user-friendly GUIs using a form-type format for creating secure complex queries based on selection of table(s), columns, and constraints, running the queries to create a snapshot of the database 160 data on their workstation, and editing the results of the query on their workstation 150, and when all edits are complete, saving the changes on the archival database 160. The prior art of record does not teach or suggest editing the results of the query on their workstation 150, and when all edits are complete, saving the changes on the archival database 160.

Further, as described in paragraph 67 of the application, if desired, changes to the data on their workstation 150 can be performed by inserting, deleting, or updating rows; importing data from the clipboard or from files; and by using editing features such as find/replace and copy/paste features, which are provided in the SCPS Java applet, and

which execute in a browser environment. Applicants' Figure 7C shows item 757 that represents the editing of the worksheet including common functions such as inserting, deleting, updating, importing, replicating, calculating, etc. possibly using imported user data 756.

To the contrary, column 10, lines 36-43 of Ireland addresses the use of JDBC for sending queries to the database server and retrieving a result set back to the client workstation. More specifically, in Ireland on the client side, the user is able to generate a component graphically (e.g., using PowerBuilder or other visual development environment). For a Java component, the system of Ireland generates a stub. The stub, which resembles a Java class, include employs JDBC for sending requests to the component transaction server for receiving tabular result sets back. Thus, Ireland does not address the editing of the result set on the client, nor the committing of these changes back to the database server.

Further, Ireland, in column 8, lines 21-31, discloses editing results, but only when bound to data-aware controls (such as Power Builder) that automatically commit data changes at a time not controlled by the end-user, and without user control over the handling of errors and data conflicts. More specifically, that portion of Ireland provides that, in the Result Set module 224, the CTS 221 provides tabular result sets, thus making the environment very desirable for business applications. Ireland explains that, in most component-based systems, a component interface returns an object. CTS components can return either an object or a collection of objects called a "result set." The format of a result set is based on the standard ODBC result set, and it is roughly equivalent to a database cursor. Because they return a result set, CTS components are much simpler and more efficient to work with. For instance, result sets can be bound directly to data-aware controls such as a PowerBuilder, DataWindow, a Sybase, PowerJ Grid control, or any data-aware control that can be bound to an ODBC result set. In this fashion, GUI development with CTS is nearly identical to traditional two-tier systems. The CTS 221 automatically manages partial refreshes and updates of the result set.

Huber is principally directed to the utilization of a drag-and-drop interface and is referred to in the Office Action for teaching providing a response in worksheet grid form. Therefore, the Office Action does not propose that Huber teaches (nor does Huber teach

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or suggest) the claimed feature of "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. Thus, any combination of Ireland and Huber would not teach or suggest the invention defined by independent claims 1, 10, or 19.

In view the foregoing, the Board is respectfully requested to reconsider and withdraw this rejection.

ii. The Independent Patentability of Dependent Claims 2, 3, 5, 8, 11, 13, 16, 20, 21, 23, and 26

The following discussion demonstrates that the combination of Ireland in view of Huber does not teach or suggest the invention defined by the dependent claims, but also that the dependent claims are independently patentable over their associated independent claims and do not stand or fall with their associated independent claims.

Dependent claims 2 and 20 define that the creating of the query form creates secure complex queries based on a selection of table, columns, and constraints maintained in a database of said server computer. However, as shown above, the proposed combination of Ireland and Huber does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that the creating of the query form creates secure complex queries based on a selection of table, columns, and constraints maintained in a database of said server computer, as defined by dependent claims 2 and 20. Thus, any combination of Ireland in view of Huber would not teach or suggest the invention defined by dependent claims 2 and 20 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claims 2 and 20 are independently patentable over the applied prior art references on their own.

Dependent claims 3 and 21 define that the receiving of the worksheet grid form results in creating a snapshot from data in a database of the server. However, as shown above, the proposed combination of Ireland and Huber does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that the receiving of the worksheet grid form results in creating a snapshot from data in a

database of the server, as defined by dependent claims 3 and 21. Thus, any combination of Ireland in view of Huber would not teach or suggest the invention defined by dependent claims 3 and 21 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claims 3 and 21 are independently patentable over the applied prior art references on their own.

Dependent claims 5, 13, and 23 define that packaging the worksheet grid form includes producing reports capable of summarizing information by selected groups. However, as shown above, the proposed combination of Ireland and Huber does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that packaging the worksheet grid form includes producing reports capable of summarizing information by selected groups, as defined by dependent claims 5, 13, and 23. Thus, any combination of Ireland in view of Huber would not teach or suggest the invention defined by dependent claims 5, 13, and 23 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claims 5, 13, and 23 are independently patentable over the applied prior art references on their own.

Dependent claims 8, 16, and 26 define that the packaging of the worksheet grid form includes allowing only tables, rows, and columns to be updated by authorized users. However, as shown above, the proposed combination of Ireland and Huber does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that the packaging of the worksheet grid form includes allowing only tables, rows, and columns to be updated by authorized users, as defined by dependent claims 8, 16, and 26. Thus, any combination of Ireland in view of Huber would not teach or suggest the invention defined by dependent claims 8, 16, and 26 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claims 8, 16, and 26 are independently patentable over the applied prior art references on their own.

Dependent claim 11 defines updating the database through the network by transmitting the worksheet grid form from the client computer to the server computer. However, as shown above, the proposed combination of Ireland and Huber does not

provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest updating the database through the network by transmitting the worksheet grid form from the client computer to the server computer, as defined by dependent claim 11. Thus, any combination of Ireland in view of Huber would not teach or suggest the invention defined by dependent claim 11 which indicates that these features are novel and are independently patentable over the independent claims. Therefore, dependent claim 11 is independently patentable over the applied prior art references on its own.

Therefore, dependent claims 2, 3, 5, 8, 11, 13, 16, 20, 21, 23, and 26 are similarly patentable, not only by virtue of their dependency from a patentable independent claim, but also by virtue of the additional features of the invention define. In view the foregoing, the Board is respectfully requested to reconsider and withdraw this rejection.

2.   The Rejection Based on Ireland, Huber and Hahn

a.   The Position in the Office Action

With respect to the rejection of claims 6, 14, and 24, the Office Action states the following:

Claim 6:

The combination of Ireland '666 and Huber '514 discloses the elements of claim 1 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables.

Hahn '293 discloses wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables [Fig SE].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include wherein said packaging said worksheet grid form includes producing comparison reports on a

delta between two similarly structured tables as taught by Hahn '293.

The ordinarily skilled artisan would have been motivated to modify the combination of Ireland 666 and Huber '514 per the above for the purpose of identifying data which has been revised [paragraph 79].

Claim 14:

The combination of Ireland '666 and Huber '514 discloses the elements of claim 1 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables.

Hahn '293 discloses wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables [Fig SE].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables as taught by Hahn '293.

The ordinarily skilled artisan would have been motivated to modify the combination of Ireland 666 and Huber '514 per the above for the purpose of identifying data which has been revised [paragraph 79].

Claim 24:

The combination of Ireland '666 and Huber '514 discloses the elements of claim 19 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables.

Hahn '293 discloses wherein said packaging said worksheet grid form includes producing comparison reports on a delta between

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two similarly structured tables [Fig SB].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables as taught by Hahn '293.

The ordinarily skilled artisan would have been motivated to modify the combination of Ireland '666 and Huber '514 per the above for the purpose of identifying data which has been revised [paragraph 79].

b.   Appellants' Position

i.   Independent Claims 1, 10, and 19

The Office Action refers to Hahn as teaching comparing two similarly structured tables in order to overcome a similar lack of teaching in Ireland and Huber. It is Applicants' position that Hahn discloses the comparison of data in the same table over a period of time, to determine differences in data due to revisions. However, Hahn does not cure the deficiency of Ireland and Huber discuss above. More specifically, Hahn does not provide any teaching or suggestion of the claimed feature of "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. Therefore, any combination of Ireland, Huber and Hahn would not teach or suggest the invention defined by independent claims 1, 10, and 19, and it is Applicants' position that such claims are patentable.

ii.   The Independent Patentability of Claims 6, 14, and 24

The following discussion demonstrates that the combination of Ireland, Huber and Hahn does not teach or suggest the invention defined by the dependent claims, but also

that the dependent claims are independently patentable over their associated independent claims and do not stand or fall with their associated independent claims.

Dependent claims 6, 14, and 24 define that the packaging of the worksheet grid form includes producing comparison reports on a delta between two similarly structured tables. However, as shown above, the proposed combination of Ireland, Huber, and Hahn does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that the packaging of the worksheet grid form includes producing comparison reports on a delta between two similarly structured tables, as defined by dependent claims 6, 14, and 24. Therefore, no combination of the foregoing references teaches or suggests that the packaging of the worksheet grid form includes producing comparison reports on a delta between two similarly structured tables. Therefore, the features defined by dependent claims 6, 14, and 24 are independently patentable over the prior art and over their respective independent claims. In view the foregoing, the Board is respectfully requested to reconsider and withdraw this rejection.

3. The Rejection Based on Ireland, Huber and Della-Libera

a. The Position in the Office Action

With respect to the rejections of claims 7, 9, 15, 17, and 25, the Office Action states the following:

Claim 7:

The combination of Ireland '666 and Huber '514 discloses the essential elements of claim 1 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

Della-Libera '609 discloses wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables [paragraph 22].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

The ordinarily skilled artisan would have been motivated to modify the combination of

Ireland '666 and Huber '514 per the above for the purpose of merging and/or copying rows in a related table [paragraph 0064]

Claim 9:

The combination of Ireland '666 and Huber '514 discloses the elements of claim I as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose further including automatically maintaining a current level of implementation of said worksheet grid form on said client workstation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ireland '666 and Huber '514 to include further including automatically maintaining a current level of implementation of said worksheet grid form on said client workstation as taught by Della-Libera '609.

The ordinarily skilled artisan would have been motivated to modify the combination of Ireland '666 and Huber '514 per the above for the purpose of maintaining the data in the database at the most recent available.

Claim 15:

The combination of Ireland '666 and Huber '514 discloses the essential elements of claim 1 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

Della-Libera '609 discloses wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables [paragraph 22].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

The ordinarily skilled artisan would have been motivated to modify the combination of

Ireland '666 and Huber '514 per the above for the purpose of merging and/or copying rows in a related table [paragraph 0064]

Claim 17:

The combination of Ireland '666 and Huber '514 discloses the elements of claim 1 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose further including automatically maintaining a current level of implementation of said worksheet grid form on said client workstation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ireland '666 and Huber '514 to include further including automatically maintaining a current level of implementation of said worksheet grid form on said client workstation as taught by Della-Libera '609.

The ordinarily skilled artisan would have been motivated to modify the combination of Ireland '666 and Huber '514 per the above for the purpose of maintaining the data in the database at the most recent available.

Claim 25:

The combination of Ireland '666 and Huber '514 discloses the essential elements of claim 19 as noted above.

The combination of Ireland '666 and Huber '514 fails to disclose wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

Della-Libera '609 discloses wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables [paragraph 22].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

The ordinarily skilled artisan would have been motivated to modify the combination of Ireland '666 and Huber '514 per the above for the purpose of merging and/or copying rows in a related table [paragraph 0064]

Regarding claims 9 and 17, the combination of Ireland '666 and Huber '514 discloses the essential elements of the claimed invention except for automatically maintaining a current level of implementation. Della-Libera '609 discloses automatically maintaining a current level of implementation [paragraph 0063]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include automatically maintaining a current level of implementation as taught by Della-Libera '609 for the purpose of maintaining the data in the database at the most recent available.

b. Appellants' Position

i. Independent Claims 1, 10, and 19

The Della-Libera reference is utilized for disclosing cascaded mass changes for the purpose of merging and/or copying rows. However, Della-Libera is not referred to for teaching or suggesting (and does not teach or suggest) the feature that is missed by Ireland and Huber as explained above. More specifically, Della-Libera omits any teaching of "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. Therefore, it is Applicants' position that independent claims 1, 10, and 19 are patentable over the proposed combination of Ireland, Huber, and Della-Libera.

ii.   **The Independent Patentability of Claims 7, 9, 15, 17, and 25**

The following discussion demonstrates that the combination of Ireland, Huber and Della-Libera does not teach or suggest the invention defined by the dependent claims, but also that the dependent claims are independently patentable over their associated independent claims and do not stand or fall with their associated independent claims.

Dependent claims 7, 15, and 25 define that the packaging of the worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables. However, as shown above, the proposed combination of Ireland, Huber, and Della-Libera does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that the packaging of the worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables, as defined by dependent claims 7, 15, and 25. Thus, any combination of Ireland, Huber, and Della-Libera would not teach or suggest the invention defined by dependent claims 7, 15, and 25 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claims 7, 15, and 25 are independently patentable over the applied prior art references on their own.

Dependent claims 9 and 17 define automatically maintaining a current level of implementation of the worksheet grid form on the client workstation. However, as shown above, the proposed combination of Ireland, Huber, and Della-Libera does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest automatically maintaining a current level of implementation of the worksheet grid form on the client workstation, as defined by dependent claims 9 and 17. Thus, any combination of Ireland, Huber, and Della-Libera would not teach or suggest the invention defined by dependent claims 9 and 17 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claims 9 and 17 are independently patentable over the applied prior

art references on their own. Therefore, the Board is requested to reconsider and withdraw this rejection.

4.   The Rejection Based on Ireland, Huber and Gunthery

a.   The Position in the Office Action

With respect to claim 18, the Office Action states the following:

> Regarding claim 18, the combination of Ireland '666 and Huber '514 discloses the essential elements of the claimed invention as noted above except for partitioning the database into private and public databases. Guthery '915 discloses partitioning the database into private and public databases [col 6, lines 44-SO]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include partitioning the database into private and public databases as taught by Guthery '915 for the purpose of dividing the database into confidential and non-confidential user information [col 6, lines 44-46].

b.   Appellants' Position

i.   Independent Claims 1, 10, and 19

The Guthery reference is utilized for disclosing partitioning the database into private and public databases. However, Guthery is not referred to for teaching or suggesting (and does not teach or suggest) the feature that is omitted by Ireland and Huber as explained above. More specifically, Guthery does not teach "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. Therefore, it is Applicants' position that independent claims 1, 10, and 19 are patentable over the proposed combination of Ireland, Huber, and Guthery. Therefore, once again, the Board is requested to reconsider and withdraw this rejection.

ii.   The Independent Patentability of Claim 18

The following discussion demonstrates that the combination of Ireland, Huber and Guthery does not teach or suggest the invention defined by the dependent claims, but also that the dependent claims are independently patentable over their associated independent claims and do not stand or fall with their associated independent claims.

Claim 18 defines controlling access to data of a user in the database by partitioning the database into private and public databases, wherein the user controls the access. However, as shown above, the proposed combination of Ireland, Huber, and Guthery does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest controlling access to data of a user in the database by partitioning the database into private and public databases, wherein said the controls the access. Thus, any combination of Ireland, Huber, and Guthery would not teach or suggest the invention defined by dependent claim 18 which indicates that these features are novel and are independently patentable over their respective independent claims. Therefore, dependent claim 18 is independently patentable over the applied prior art references on its own. Therefore, the Board is requested to reconsider and withdraw this rejection.

5.   The Rejection Based on Ireland, Huber, and Smith

a.   The Position in the Office Action

Regarding claim 27, the Office Action states the following:

The combination of Ireland '666 and Huber '514 discloses the essential elements of the claimed invention as noted above except for JAVA programming language. Smith '543 discloses JAVA programming language [paragraph 0040]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ireland '666 and Huber '514 to include JAVA programming language as taught by Smith '543 for the purpose of providing a platform independent language

[paragraph 0040].

b.   Appellants' Position

i.   Independent Claims 1, 10, and 19

The Smith reference is utilized for disclosing a JAVA programming language. However, Smith is not referred to for teaching or suggesting (and does not teach or suggest) the feature that is left out by Ireland and Huber as explained above. More specifically, Smith skips any teaching of "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. Therefore, it is Applicants' position that independent claims 1, 10, and 19 are patentable over the proposed combination of Ireland, Huber, and Smith. In view the foregoing, the Board is respectfully requested to reconsider and withdraw this rejection.

ii.   The Independent Patentability of Claim 27

The following discussion demonstrates that the combination Ireland, Huber and Smith does not teach or suggest the invention defined by the dependent claims, but also that the dependent claims are independently patentable over their associated independent claims and do not stand or fall with their associated independent claims.

Claim 27 defines that the program code for implementing the instructions comprises JAVA programming language. However, as shown above, the proposed combination of Ireland, Huber, and Smith does not provide for editing and saving the changes. Therefore, the proposed combination cannot teach or suggest that the program code for implementing such instructions comprises JAVA programming language. Thus, any combination of Ireland, Huber, and Smith would not teach or suggest the invention defined by dependent claim 27 which indicates that these features are novel and are independently patentable over their respective independent claims. Further, dependent claim 27 is patentable because it depends from a patentable independent claim and also

because of the features claim 27 defines. In view the foregoing, the Board is respectfully requested to reconsider and withdraw this rejection.

IX. CONCLUSION

The Office Action relies upon the paragraph appearing in column 10, lines 36-42 of Ireland as disclosing the claimed limitation "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19. However, as explained in greater detail above, it is Applicants' position that this paragraph in Ireland only discloses the claimed sending of a request to a server and receiving tabular result sets back in response to the request and does not disclose any editing of such results and/or saving such changes in the database as in the claimed invention.

Therefore, Applicants respectfully disagree with the conclusion in the Office Action that Ireland and Huber teach or suggest the ability to modify the query result set on the workstation and commit those changes back to the database server. To the contrary, Huber and Ireland focus on the ability to generate and execute dynamic read-only queries. Therefore, it is Applicants' position that the combination of Ireland and Huber does not teach or suggest "editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server" as defined by independent claims 1, 10, and 19.
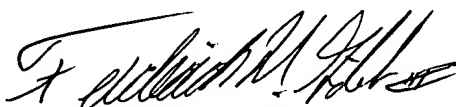
More specifically, as explained in paragraph 47 of the application, and as shown in Figure 2 of the application, the invention is web-based and has user-friendly GUIs using a form-type format for creating secure complex queries based on selection of table(s), columns, and constraints, running the queries to create a snapshot of the database 160 data on their workstation, and editing the results of the query on their workstation 150, and when all edits are complete, saving the changes on the archival database 160. The prior art of record does not teach or suggest editing the results of the query on their workstation 150, and when all edits are complete, saving the changes on the archival database 160.

Further, as described in paragraph 67 of the application, if desired, changes to the data on their workstation 150 can be performed by inserting, deleting, or updating rows; importing data from the clipboard or from files; and by using editing features such as find/replace and copy/paste features, which are provided in the SCPS Java applet, and which execute in a browser environment. Applicants' Figure 7C shows item 757 that represents the editing of the worksheet including common functions such as inserting, deleting, updating, importing, replicating, calculating, etc. possibly using imported user data 756. Thus, any combination of Ireland and Huber would not teach or suggest the invention defined by independent claims 1, 10, or 19. In view the foregoing, the Board is respectfully requested to reconsider and withdraw the rejections of claims 1-3, 5, 8, 10, 11, 13, 16, 19-21, 23 and 26.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0458.

Respectfully submitted,

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APPENDIX

1.   (Previously Presented) A method of creating a tabular data stream for sending data between a client workstation and a server computer through a network using a common object request broker architecture (CORBA), said method comprising:

creating a query form in said client workstation;

receiving a worksheet grid form in response to said query form, said worksheet grid form defining selected tabular data; and

packaging said worksheet grid form to represent updated data for said tabular data stream,

wherein said packaging of said worksheet grid form includes editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server.

2.   (Original) The method of claim 1, wherein said creating of said query form creates secure complex queries based on a selection of table, columns, and constraints maintained in a database of said server computer.

3.   (Original) The method of claim 1, wherein said receiving of said worksheet grid form creates a snapshot from data in a database of said server.

4.   (Canceled).

5.   (Original) The method of claim 1, wherein said packaging said worksheet grid form includes producing reports capable of summarizing information by selected groups.

6.   (Original) The method of claim 1, wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables.

7.   (Original) The method of claim 1, wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

8.   (Original) The method of claim 1, wherein said packaging said worksheet grid form includes allowing only tables, rows, and columns to be updated by authorized users.

9.   (Original) The method of claim 1, further including automatically maintaining a current level of implementation of said worksheet grid form on said client workstation.

10.   (Previously Presented) A method of querying a database through a secure network using a common object request broker architecture (CORBA), wherein said database is associated with a server computer running a server process, said server computer being connected to, and in communication with, a client computer through a network, said method comprising:

issuing, by a client process running on a client computer, a query form for data from a database;

sending said query form from said client computer to said server computer;

processing said query form, by said server computer, and retrieving rows of data satisfying said query form from said database as a worksheet grid form defining selected tabular data;

sending said worksheet grid form from said server computer to said client computer; and

packaging, by said client computer, said worksheet grid form representing updated data for marshaling tabular data for transfer between said client computer and said server computer,

wherein said packaging of said worksheet grid form includes editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server.

11.   (Original) The method in claim 10, further comprising updating said database through said network by transmitting said worksheet grid form from said client computer to said server computer.

12.   (Canceled).

13.   (Previously Presented) The method of claim 11, wherein said updating of said tabular data includes selecting tabular data summarized by selected groups.

14.   (Original) The method of claim 10, wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables.

15.   (Original) The method of claim 11, wherein said updating of said tabular data includes making cascaded mass changes to a set of related data across multiple tables.

16.   (Original) The method of claim 11, wherein said updating of said database of said worksheet grid form includes allowing only selected tables, rows, and columns to be updated by authorized users.

17.   (Original) The method of claim 10, further including automatically maintaining a current level of implementation of said worksheet grid form on said client workstation.

18.   (Original) The method of claim 10, further including controlling access to data of a user in said database by partitioning said database into private and public database, wherein said user controls said access.

19.   (Previously Presented) A computer program product for use with a secure database management system having a client system operatively coupled to a server system using a common object request broker architecture (CORBA), the computer

program product comprising a computer usable medium having computer usable program code for implementing the following instructions comprising:

　receiving a request to create a query form in said client workstation;

　receiving a worksheet grid form defining selected tabular data; and

　packaging said worksheet grid form representing updated data for said tabular data stream,

　wherein said packaging of said worksheet grid form includes editing results of said query form and saving changes of data contained in said worksheet grid form in a database of said server.

20.　(Original) The method of claim 19, wherein said creating of said query form creates secure complex queries based on a selection of table, columns, and constraints maintained in a database of said server computer.

21.　(Original) The method of claim 19, wherein said receiving of said worksheet grid form results in creating a snapshot from data in a database of said server.

22.　(Canceled).

23.　(Original) The product of claim 19, wherein said packaging said worksheet grid form includes producing reports capable of summarizing information by selected groups.

24.　(Original) The product of claim 19, wherein said packaging said worksheet grid form includes producing comparison reports on a delta between two similarly structured tables.

25.　(Original) The product of claim 19, wherein said packaging said worksheet grid form includes making cascaded mass changes to a set of related data across multiple tables.

26. (Original) The product of claim 19, wherein said packaging said worksheet grid form includes allowing only tables, rows, and columns to be updated by authorized users.

27. (Original) The product of claim 19, wherein said program code for implementing said instructions comprises JAVA programming language.